

# PESTICIDES AND LAND DEVELOPMENT

## INVESTIGATION EVALUATION REMOVAL

San Diego County DEH/SAM

Annual Update Feb 3, 2005 – David Felix





The San Diego

# Union-Tribune.

STREET  
FINAL

35¢  
Tax included

## Pesticides: a new peril?

*Study shows  
potency soars  
when chemicals  
are combined*

# NO REGULATORY STRUCTURE

- Chemicals legally applied
- No requirement for cleanup
- No agency to oversee work
- No cleanup levels
- No formal closure

# WHAT CAN SAM DO FOR YOU?

- Review plans and conclusions
- Share experience from 29 projects
- Suggest cost effective work
- Write CONCURRENCE letter
- Independent repository

# PESTICIDES COMMONLY FOUND IN SAN DIEGO COUNTY

- DDT DDE DDD – Banned in 1973
- Toxaphene – Banned in 1990
- Chlordane
- Dieldren

All are known or potential carcinogens

# IS THE SOIL A WASTE?

- Soil in growing area not a waste
- Soil in spill or disposal area = waste
- Soil that leaves site = waste
- Selective cut and fill can remove pesticide soil from surface
- Is stockpile a waste? Use SPLP.

# IS WASTE SOIL A HAZ. WASTE?

(FROM SPILL AREA/SOIL LEAVES SITE)

	Max. found	CA Haz Waste
DDTtotal	15000	1000
Toxaphene	5000	5000
Chlordane	780	2500
Dieldrin	349	8000
		ug/kg



# IS THE SOIL A HEALTH THREAT?

	Max. found	Residential PRG	CA Haz Waste
DDTtotal	15000	5800	1000
Toxaphene	5000	440	5000
Chlordane	780	1600	2500
Dieldrin	349	30	8000
			ug/kg

# PRELIMINARY REMEDIATION GOALS

- USEPA Region 9
- Screening level- less than  $1 \times 10^{-6}$  excess cancers
- Many considerations, values change
- [www.epa.gov/region09/waste/sfund/prg/index.htm](http://www.epa.gov/region09/waste/sfund/prg/index.htm)

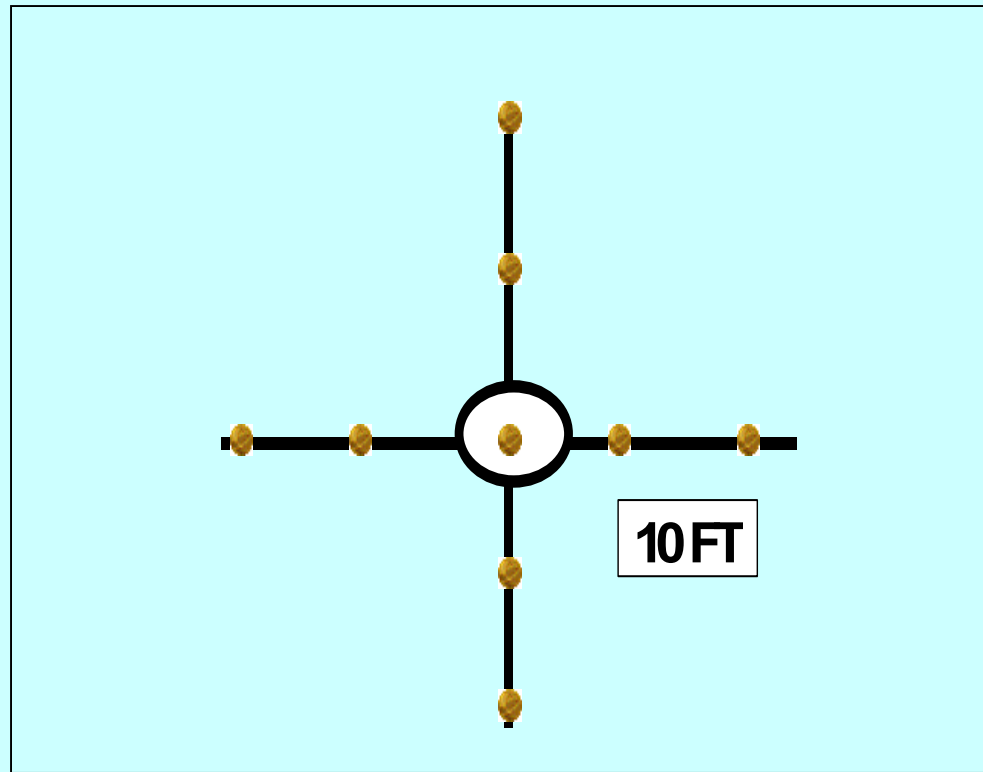
# HOTSPOT SAMPLING

0.5 ft

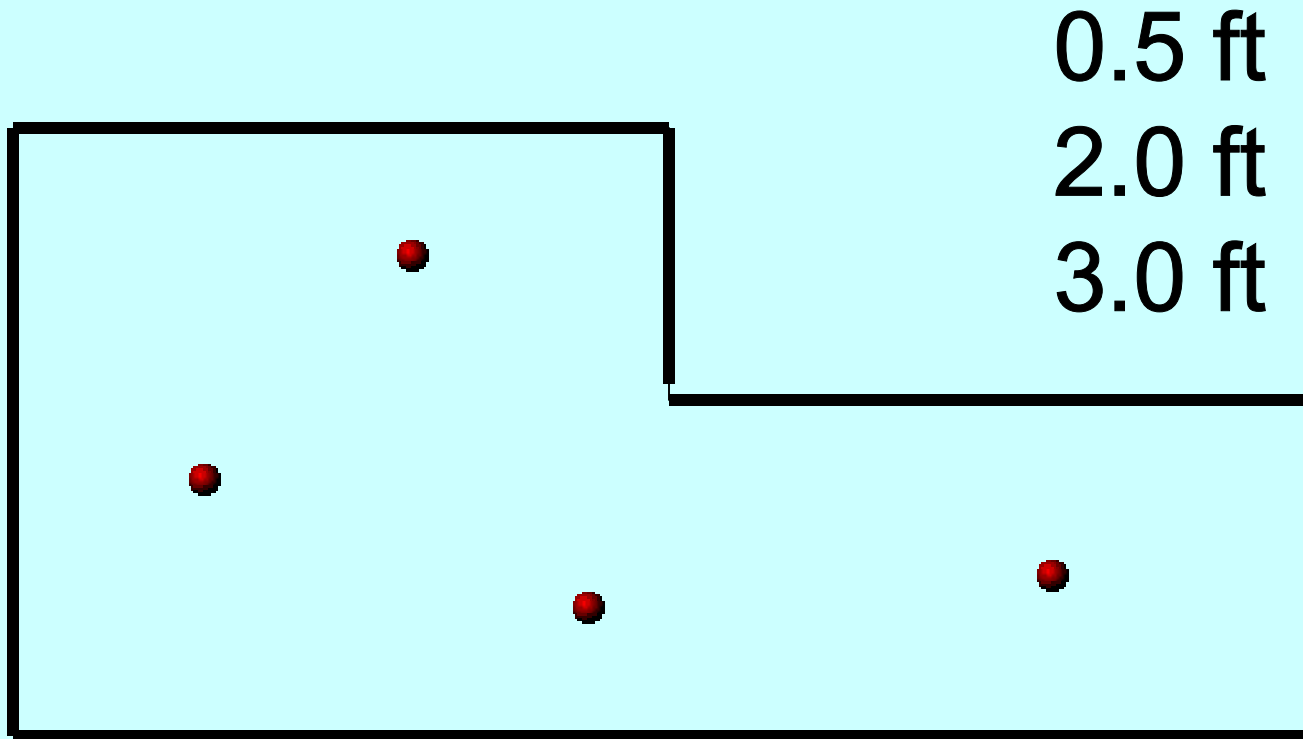
2.0 ft

4.0 ft

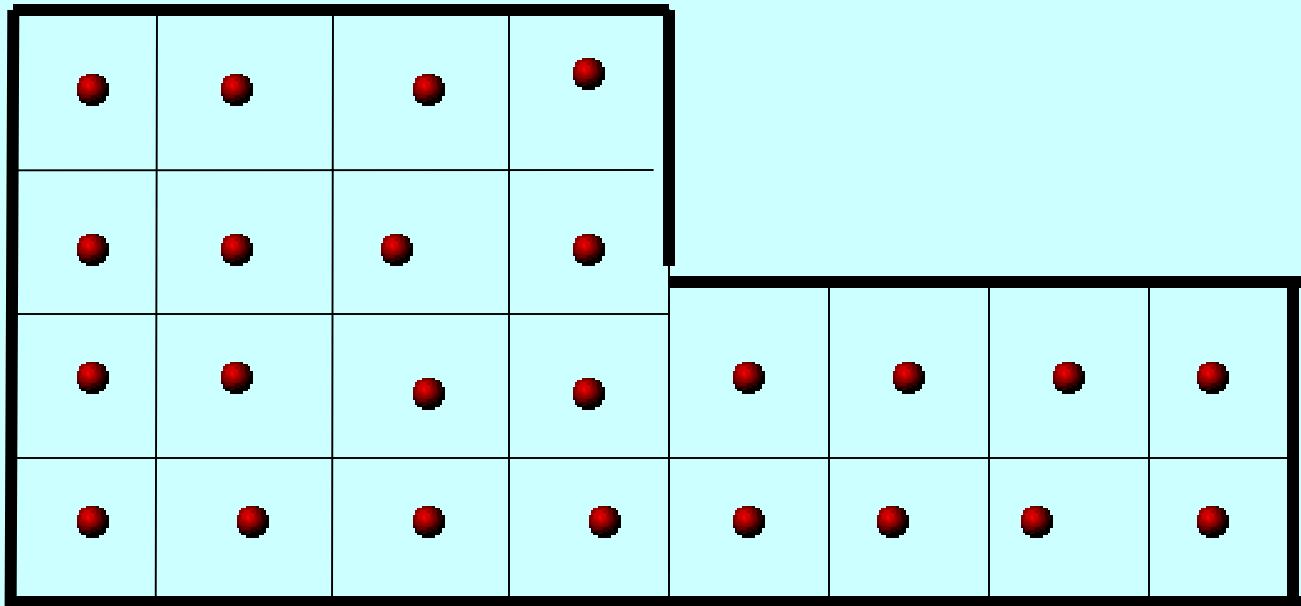
6.0 ft



# PRELIMINARY GROWING AREA SAMPLING



# GROWING AREA SAMPLING

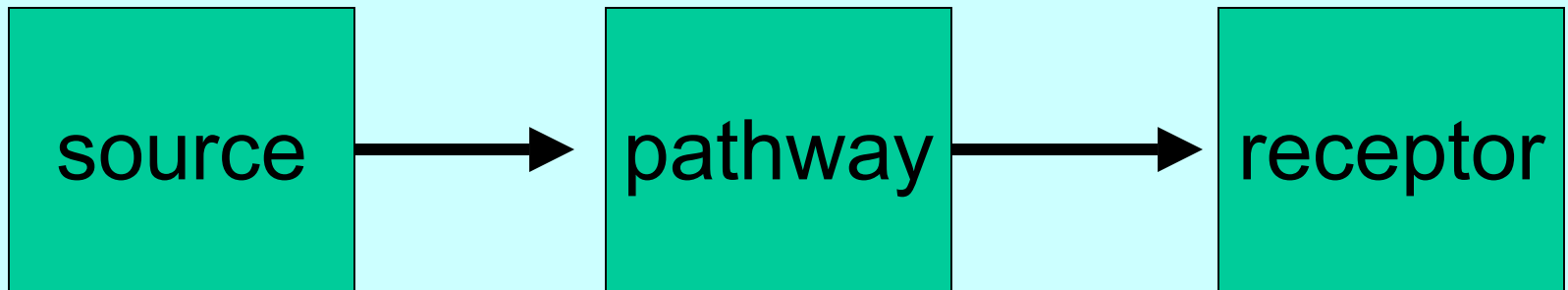




# PESTICIDE DISTRIBUTION ON SITE

- Horizontal distribution is erratic
- 0-1.5 feet shows similar concentration
- Low levels at 3 ft
- Very rare below 4 ft
- Values do not always decrease with depth

# BREAK THE CHAIN



# BREAK THE CHAIN

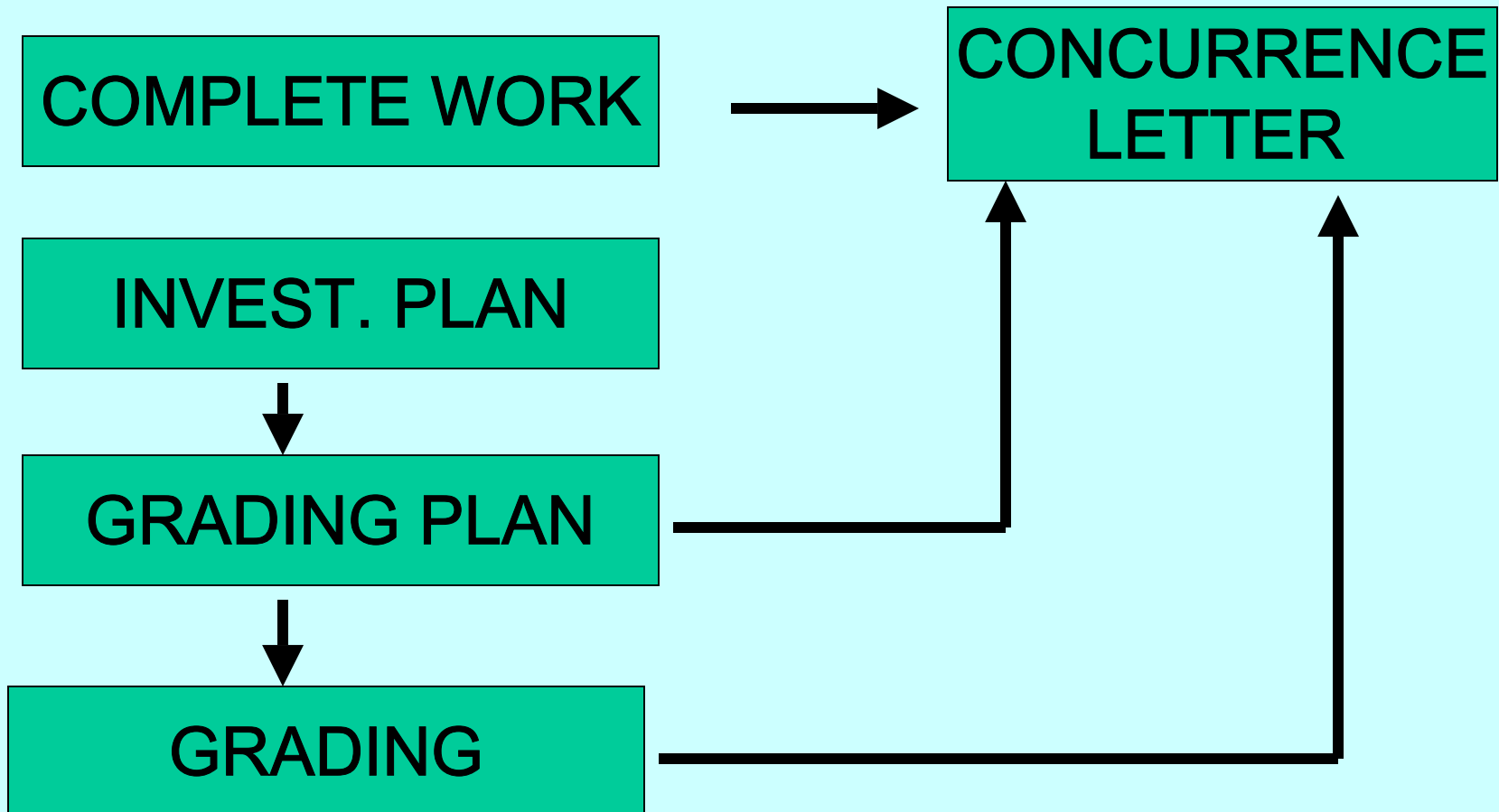


Paving eliminates pathway

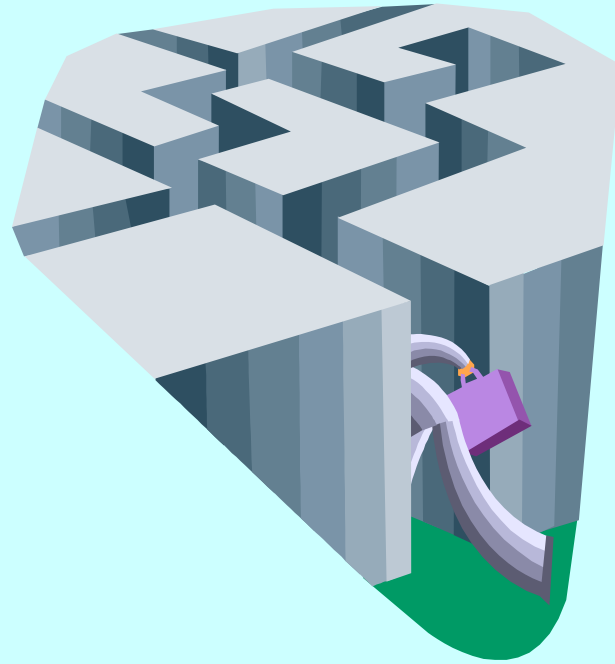
# PLACEMENT OF FILL SOIL

- Must remain on the parcel
- 5 ft above highest watertable
- Cannot be accidentally exposed
- Cannot erode
- Known volume and concentration
- Fill location(s) plotted on surveyed map
- Suggestion - place below “common area”

# REACHING THE GOAL







Without legal structure,  
methods for resolving  
pesticide contamination  
cases will continue to evolve.